

REMARKS

Claim 1 has been amended by incorporating the limitation of original claim 2 into claim 1. This amendment remedies any alleged lack of clarity by specifying the maximum cross-section of the cells in a plane parallel to the support.

This size is equivalent to a square of $21\text{ }\mu\text{m} \times 21\text{ }\mu\text{m} = 441\text{ }\mu\text{m}^2$ per cell. This is an extremely small size. The Ylitalo reference cited by the Examiner suggests a cell density of at least 90,000 per in^2 . This corresponds to a square of size $6.25 \times 10^8\text{ }\mu\text{m}^2 / 90,000\text{ cells} = 6940\text{ }\mu\text{m}^2/\text{cell} = 83\text{ }\mu\text{m} \times 83\text{ }\mu\text{m}$ in square. Such a cell is the smallest specifically suggested and some 15 times bigger than the largest claimed in the present application. In the table at page 22 of the reference, a cubic cell with a square cross-section exhibits a lateral dimension of $80\text{ }\mu\text{m}$ ($75\text{ }\mu\text{m}$ if the wall thickness is accounted for) giving an area per cell of $6400\text{ }\mu\text{m}^2$ some 12 times the maximum in this invention. There is no basis to believe that the embossing method employed by the reference is capable of achieving the small sizes of the present invention.

The Examiner attempts to pick and choose parametric values from various cell measurements but there is no basis for choosing the values as independent variables. It is likely that the size of the cells in depth, width, and volume is not separately selectable as the examiner suggests. The Examiner chooses an aspect ratio of 2.5 as being about 2 without any basis therefore and in spite of the preferred range of 0.5 to 1.0. At the preferred aspect ratio of 0.5 to 1 and a depth of 25 to $75\text{ }\mu\text{m}$, the area of the cell ranges from $150\text{ }\mu\text{m} \times 150\text{ }\mu\text{m} = 22,500\text{ }\mu\text{m}^2$ to $25\text{ }\mu\text{m} \times 25\text{ }\mu\text{m} = 625\text{ }\mu\text{m}^2$.

The volume of a cavity in the reference ranges from 20 to about a 1000 pL but the Examiner assumes about 20 would include 1 pL. Claim 9 is directed to a volume of less than 20 pL.

The specification has been amended to delete the paragraph of the specification referring to Figures 11, 12a, 12b, 12c, 12d, 13a, and 13c.

Enclosed herewith is a suitable Terminal Disclaimer sufficient to overcome the two double patenting rejections based on co-pending applications 10/045686 and 10/046024. The Examiner referred to Serial No. 10/046264 but it

is believed he intended Serial No. 10/046,024 as this corresponds to the application cross-referenced at the beginning of the application.

It is believed that the amendment of claim 1 overcomes any clarity concerns the Examiner had concerning the small cell size and that the claimed cell size is not suggested in the references. Accordingly, the rejections pursuant to 35 USC 102 and 103 should be withdrawn.

The Examiner is requested to reinstate withdrawn claims 14-16 and 21-25 directed to non elected species in view of the demonstrated patentability of the generic claims.

The Examiner is respectfully requested to withdraw the outstanding rejection and to pass the subject application to Allowance.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'Arthur E. Kluegel', written over a horizontal line.

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